What the Internet Looks Like, Abe C, wildism.org

Ingrid Burrington’s book, Networks of New York: An Illustrated Field Guide to Urban Internet Infrastructure, is probably the opposite of what an eco-radical would want to read, but it shouldn’t be. For one thing, I have never been a fan of nature field guides, whether these aim to teach which plants are edible, which birds can be seen at what time of year, and other facts related to outdoor activities. I would argue (perhaps flippantly) that those field guides affirm a cultural lie, namely that “Wild Nature” exists as a separate geographic space that can be returned to at one’s leisure. Or rather, nature can be compartmentalized and preserved as a sanctuary in the midst of a hyper-technical world. I am guilty of doing this, of course; of “Googling” what a random berry was while on a hike and other reluctant uses of technology.

Burrington’s book aims at the opposite: to illustrate what our world is really like in the place that is most “our world” than any other: New York City. I am not the most well-travelled person in the world by any means, but I have seen my share of cities. None can compare with the overwhelming mass of concrete, glass, and asphalt that one faces when entering the island of Manhattan. Burrington’s own tour aimed to “find the Internet” in the midst of the largest city of the wealthiest country in history. Complete with drawings and illustrations, it is a field guide in every sense. The book shows you what a particular manhole cover means, where to find important Internet exchanges, as well as the politics of the myriad of video cameras and other detection devices that are used to fight terrorism and crime. Burrington illustrates the physicality of the Internet, which in the end is the key to its ineffable transcendence:

One of the hardest parts of trying to see the Internet, of trying to even answer the question of how you see the Internet, is scale. The writer Quinn Norton has written of the difficulty of telling stories today in “a world where falling in love, going to war, and filling out tax forms looks the same; it looks like typing.” There is an unexpected intimacy to living with screens, but that intimacy does not typically extend to the cable and conduits the screens rely upon. As the ‘division’ between real life” and “online life” is increasingly understood to be fiction (i.e. what people say and do online has real-world consequences, retweets are not endorsements, your boss can find your Tinder profile), the Internet’s landscapes continue to appear at a remove from those physical landscapes where we fall in love, go to war, and fill out tax forms. Ironically, the reason we can ever have those weirdly personal moments with machines is because the landscapes of the Internet are folded into the landscapes of everyday life. We basically live inside a really big computer.

What Burrington does in the following pages is describe what that “really big computer” looks like. This is often difficult since part of the illusion is that the computer is invisible, that we continue to see “the computer” as something we write with at a desk or that we carry in our pocket. There are symbols on the ground for the thousands and thousands of miles of fiber optic and other wires that power and transmit information between machines. All of these symbols have a history and a special meaning. There are class considerations as well: companies like Verizon place modern and faster wire infrastructure under wealthy and gentrifying neighborhoods, even when political measures have been made to keep the Internet “democratic.” The movement of the economy itself, reduced to the logic of the roulette wheel and the Blackjack table, often hinges on the fractions of a second advantage that a certain fiber optic cable has over another:

The pursuit of a microsecond advantage led to a lot of demand on Wall Street for low-latency networks, a term used to describe the length of delay in data transmissions. Lower latency means less delay and faster trades. After apparently reaching the limits of mathematics for increasing speed, traders turned to physical proximity for lower latency. Data centers that housed stock exchanges offered expensive colocation services that placed a trading firm’s servers closer to the exchange servers to improve latency (since the cable connecting the servers was shorter, data traveled a shorter distance and got to the server faster). New companies emerged, promoting ultra-low-latency networks by leasing private fiber lines. One company, Spread Networks, built an entirely new fiber optic network from Chicago to New York to be able to achieve – and charge hundreds of thousands of dollars for – a three-millisecond advantage.

Even here, in spite of the Internet being an ethereal entity in the everyday imagination, its physicality is a pressing concern at the highest institutional level.

On the ground, the Internet is visible in junction boxes and under manhole covers, with large exchanges of wires transmitting and governing billions of activities. LinkNYC is a system of free Wi-Fi kiosks that aimed to replace the obsolete network of payphones during the middle of the last decade. While the free Internet access is appreciated by some when wandering the city, groups like the American Civil Liberties Union have raised concerns regarding the tremendous amount of data collection that these kiosks carry out in the effort to “better serve” users. It is not clear what happens to the data, or if it is shared with other government agencies, especially law enforcement. As Burrington writes:

To paraphrase George Orwell, if you want a vision of the future of public Wi-Fi, imagine a corporation doing exactly the kind of vaguely slimy things corporations do by design – forever.

In another place in the book, Burrington makes the accurate analogy of one’s personal Smartphone constantly “barking” one’s presence to Wi-Fi hotspots, thus making anyone easily locatable at least in theory.

The Internet may not be in one place, but it does have important centers which, in a city like New York, are often major buildings that were important during past eras of the communications industry. These are the “carrier hotels” where different Internet Service Providers (ISPs) and network companies “check in” and cross one another. These buildings, such as the ones at 60 Hudson Street and 32 Avenue of the Americas, aren’t exactly a secret, but neither are they open to the public in many instances. Burrington comments half-jokingly that these major pieces of infrastructure have not quite reached tourist-stop status as in the case of Hoover Dam or other impressive public works.

The last part of Burrington’s book concerns infrastructure that is tied into the Internet but that consists of things that we don’t usually think of as the Internet. These include cell phone towers, Read Radio Frequency Identification devices embedded in E-ZPass devices (for toll collection), ShotSpotter which detects gunshots in urban environment to assist law enforcement, and surveillance cameras in subways and street corners. If the world is now a computer, these devices are its eyes and ears. Many of these systems communicate with each other wirelessly. The cameras of the New York Police Department are a particularly mysterious web of machines that dot the urban landscape. As Burrington writes:

> When I filed a Freedom of Information Act request for the exact number and location of these cameras, I was denied on the grounds that it would reveal “non-routine techniques and procedures”; furthermore disclosure “would enable the planning of criminal activity so as to reduce the possibility of being caught on video.”

Overall, Burrington’s book gives both a physical and incorporeal portrait of the Internet in a hyper-urbanized environment. It describes the Internet as infrastructure composed of metal, plastic, mortar, and other elements. On the other hand, its astounding complexity, its mind-boggling reach, and its penetration deep into the human psyche make it an almost spiritual phenomenon: the assembling of people and technology into a hive-mind of astounding proportions. One wonders if it is impossible to attack the Internet since human beings themselves, domesticated and hyper-civilized humanity, have become the Internet. Or to invert the characterization of Nature by the early Karl Marx, perhaps the goal of civilization is for man to become the organic body of the Machine. And as Burrington cites in her book, how this occurs looks a lot like typing.